

AMENDMENTS TO THE CLAIMS

For the convenience of the Examiner, all claims have been presented whether or not an amendment has been made. The claims have been amended as follows:

What is claimed is:

1. **(Currently Amended)** A method for reorganizing data, comprising:
reading each record of a source file associated with an object;
writing each record to a destination file;
identifying changes to the object that are made during a reorganization process;
for each change, determining whether the change affects the reorganization process;
creating a log file comprising log records, wherein the log records are associated with only those changes that are determined to affect the reorganization process, ~~the contents of the log file being limited to a subset of all log records, each log record associated with a change to be made to the destination file~~;
reading each log record of the log file;
processing each record of the log file to effect the associated change to the destination file; and
replacing the source file with the destination file.
2. **(Original)** A method according to claim 1 wherein the source file is an index file.
3. **(Original)** A method according to claim 1 wherein the source file is a data file.
4. **(Original)** A method according to claim 1 wherein the step of creating a log file is performed in accordance with instructions of a DBMS log routine.
5. **(Original)** A method according to claim 4 wherein the log file contains a subset of all records processed by the DBMS log routine.

6. **(Original)** A method according to claim 4 wherein the log file records are selected based on a program call established by a reorganization utility.

7. **(Original)** A method according to claim 6 wherein the program call is removed prior to termination of the reorganization utility.

8. **(Original)** A method for logging changes by a database management system, comprising:

identifying a change to be logged, wherein the change occurs during a reorganization process;

creating a log record based on the change;

determining whether the change affects a the reorganization process;

storing the log record in a first log file recording selected changes only if the change is determined to affect affects the reorganization process; and

storing the log record in a second log file if the change is not determined to affect the reorganization process ~~recording all changes~~.

9. **(Original)** A method according to claim 8 wherein the first log file resides in virtual storage.

10. **(Original)** A method according to claim 8 wherein the first log file resides in dataspace.

11. **(Currently Amended)** A method according to claim 8 wherein the first log file resides in hyperspace ~~hiperspace~~.

12. **(Original)** A method according to claim 8 wherein the first log file resides in DASD.

13. **(Currently Amended)** An apparatus for reorganizing data, comprising:
means for reading each record of a source file associated with an object;
means for writing each record to a destination file;
means for identifying changes to the object that are made during a reorganization process;
means for determining whether each change affects the reorganization process;
means for creating a log file comprising log records, wherein the log records are associated with only those changes that are determined to affect the reorganization process, ~~the contents of the log file being limited to a subset of all log records, each log record associated with a change to be made to the destination file~~;
means for reading each log record of the log file;
means for processing each record of the log file to effect the associated change to the destination file; and
means for replacing the source file with the destination file.
14. **(Original)** An apparatus according to claim 13 wherein the source file is an index file.
15. **(Original)** An apparatus according to claim 13 wherein the source file is a data file.
16. **(Original)** An apparatus according to claim 13 wherein the log file is created in accordance with instructions of a DBMS log routine.
17. **(Original)** An apparatus according to claim 16 wherein the log file contains a subset of all records processed by the DBMS log routine.
18. **(Original)** An apparatus according to claim 16 wherein the log file records are selected based on a program call established by a reorganization utility.
19. **(Original)** An apparatus according to claim 18 wherein the program call is

removed prior to termination of the reorganization utility.

20. **(Currently Amended)** An apparatus for reorganizing data, comprising:
- a processor;
 - a memory connected to said processor storing a program to control the operation of said processor;
 - the processor operative with the program in the memory to:
 - read each record of a source file associated with an object;
 - write each record to a destination file;
 - identify changes to the object that are made during a reorganization process;
 - for each change, determine whether the change affects the reorganization process;
 - create a log file comprising log records, wherein the log records are associated with only those changes that are determined to affect the reorganization process, ~~the contents of the log file being limited to a subset of all log records, each log record associated with a change to be made to the destination file~~;
 - read each log record of the log file;
 - process each record of the log file to effect the associated change to the destination file; and
 - replace the source file with the destination file.

21. **(Original)** An apparatus according to claim 20 wherein the source file is an index file.

22. **(Original)** An apparatus according to claim 20 wherein the source file is an data file.

23. **(Original)** An apparatus according to claim 20 wherein the processor is further operative with the program in the memory to create the log file in accordance with instructions of a DBMS log routine.

24. **(Original)** An apparatus according to claim 23 wherein the log file contains a subset of all records processed by the DBMS log routine.

25. **(Original)** An apparatus according to claim 20 wherein the processor is further operative with the program in the memory to select the log file records based on a program call established by a reorganization utility.

26. **(Original)** An apparatus according to claim 23 wherein the processor is further operative with the program in the memory to remove the program call prior to termination of the reorganization utility.

27. **(Currently Amended)** A computer-readable storage medium encoded with processing instructions for implementing a method for reorganizing data, the processing instructions for directing a computer to perform the steps of:

reading each record of a source file associated with an object;

writing each record to a destination file;

identifying changes to the object that are made during a reorganization process;

for each change, determining whether the change affects the reorganization process;

creating a log file comprising log records, wherein the log records are associated with only those changes that are determined to affect the reorganization process, ~~the contents of the log file being limited to a subset of all log records, each log record associated with a change to be made to the destination file;~~

reading each log record of the log file;

processing each record of the log file to effect the associated change to the destination file; and replacing the source file with the destination file.

28. **(Currently Amended)** A method for reorganizing data, comprising:

creating an empty destination file;

establishing a program call to ~~copy selected~~ process log records ~~during reorganization~~;

reading each record of a source file associated with an object;
writing each record to the destination file, ~~thereby creating a reorganized copy of the source file~~;
identifying changes to the object that are made during a reorganization process;
for each change, determining whether the change affects the reorganization process;
employing the established program call to create a log file comprising log records, wherein the log records are associated with only those changes that are determined to affect the reorganization process, ~~the contents of the log file being limited to a subset of all log records, each log record associated with a change to be made to the destination file~~;
removing the established program call;
reading each log record of the log file;
processing each record of the log file to effect the associated change to the destination file; and
replacing the source file with the destination file.

29. **(Previously Presented)** A method according to claim 28 wherein the source file is an index file.

30. **(Previously Presented)** A method according to claim 28 wherein the source file is a data file.

31. **(Currently Amended)** An apparatus for reorganizing data, comprising:
- means for creating an empty destination file;
 - means for establishing a program call to ~~copy selected~~ process log records ~~during reorganization;~~
 - means for reading each record of a source file associated with an object;
 - means for writing each record to the destination file, ~~thereby creating a reorganized copy of the source file;~~
 - mean for identifying changes to the object that are made during a reorganization process;
 - means for determining whether each change affects the reorganization process;
 - means for employing the established program call to create a log file comprising log records, wherein the log records are associated with only those changes that are determined to affect the reorganization process, ~~the contents of the log file being limited to a subset of all log records, each log record associated with a change to be made to the destination file;~~
 - means for removing the established program call;
 - means for reading each log record of the log file;
 - means for processing each record of the log file to effect the associated change to the destination file; and
 - means for replacing the source file with the destination file.

32. **(Previously Presented)** An apparatus according to claim 31 wherein the source file is an index file.

33. **(Previously Presented)** An apparatus according to claim 31 wherein the source file is a data file.

34. **(Currently Amended)** An apparatus for reorganizing data, comprising:

- a processor;
- a memory connected to said processor storing a program to control the operation of said processor;
- the processor operative with the program in the memory to:
 - create an empty destination file;
 - establish a program call to ~~copy~~ selected process log records during reorganization;
 - read each record of a source file associated with an object;
 - write each record to the destination file, ~~thereby creating a reorganized copy of the source file~~;
 - identify changes to the object that are made during a reorganization process;
 - for each change, determine whether the change affects the reorganization process;
 - employ the established program call to create a log file comprising log records, wherein the log records are associated with only those changes that are determined to affect the reorganization process, ~~the contents of the log file being limited to a subset of all log records, each log record associated with a change to be made to the destination file~~;
 - remove the established program call;
 - read each log record of the log file;
 - process each record of the log file to effect the associated change to the destination file; and
 - replace the source file with the destination file.

35. **(Previously Presented)** An apparatus according to claim 34 wherein the source file is an index file.

36. **(Previously Presented)** An apparatus according to claim 34 wherein the source file is an data file.

37. **(Currently Amended)** A computer-readable storage medium encoded with processing instructions for implementing a method for reorganizing data, the processing instructions for directing a computer to perform the steps of:

creating an empty destination file;

establishing a program call to ~~copy selected~~ process log records ~~during reorganization;~~

reading each record of a source file associated with an object;

writing each record to the destination file, ~~thereby creating a reorganized copy of the source file;~~

identifying changes to the object that are made during a reorganization process;

for each change, determining whether the change affects the reorganization process;

employing the established program call to create a log file comprising log records, wherein the log records are associated with only those changes that are determined to affect the reorganization process, ~~the contents of the log file being limited to a subset of all log records, each log record associated with a change to be made to the destination file;~~

removing the established program call;

reading each log record of the log file;

processing each record of the log file to effect the associated change to the destination file; and

replacing the source file with the destination file.